



SNAG_Program-0009.mp4

Traffic Safety Resources for Everyone on the Engineering “E”

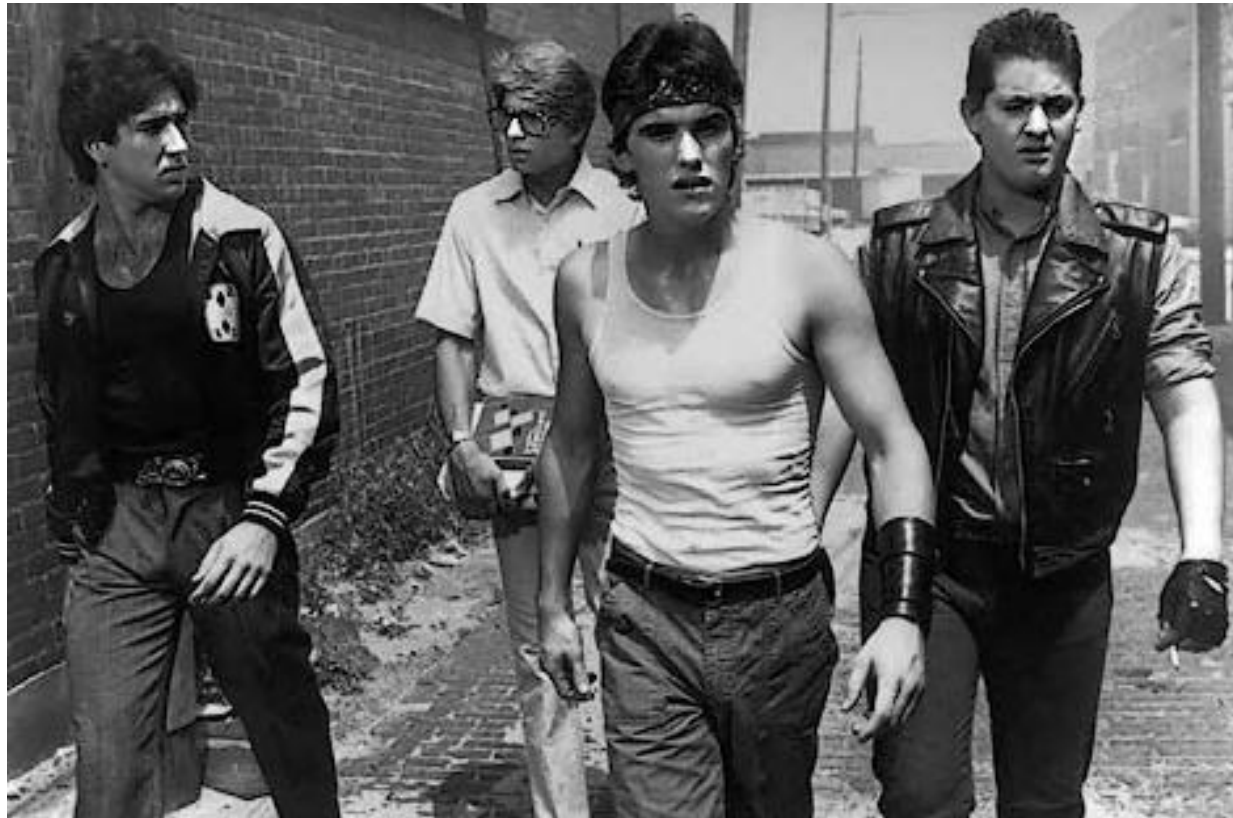
Towards Zero Deaths
Metro Region Conference
May 7, 2015

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MnDOT State Aid Division

Trending Topics

- **Rumble and Mumbles Strips**
- **Reduced Conflict Intersections (RCI)**
 - Restricted Crossing U-Turn Intersection (RCUT)
 - Roundabouts
- **Zipper Merge**
- **High Tension Cable**

Rumbles



Rumble and Mumbles Strips and Stripes

- **What is it?**
 - Grooves or rows of indents in the pavement
 - designed to alert inattentive drivers through noise and vibration
- **Where is it installed?**
- **What does it look like?**
- **How does it work?**





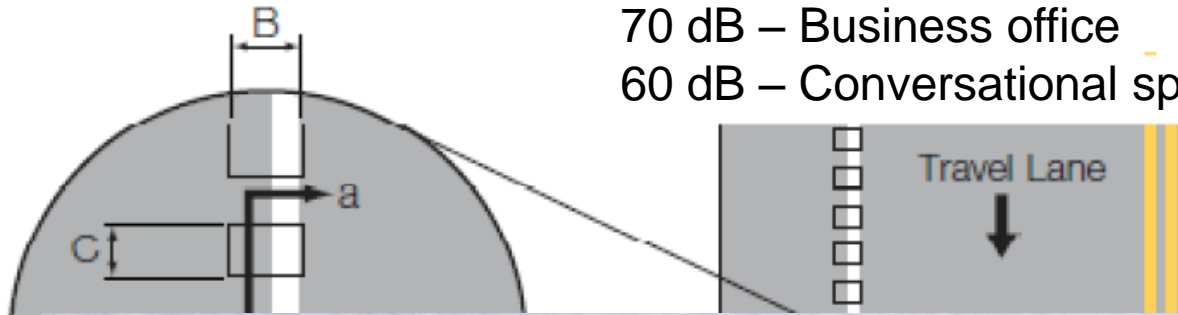
Rumble Strips and Stripes

Bench Mark

80 dB – Heavy truck traffic
70 dB – Business office
60 dB – Conversational speech

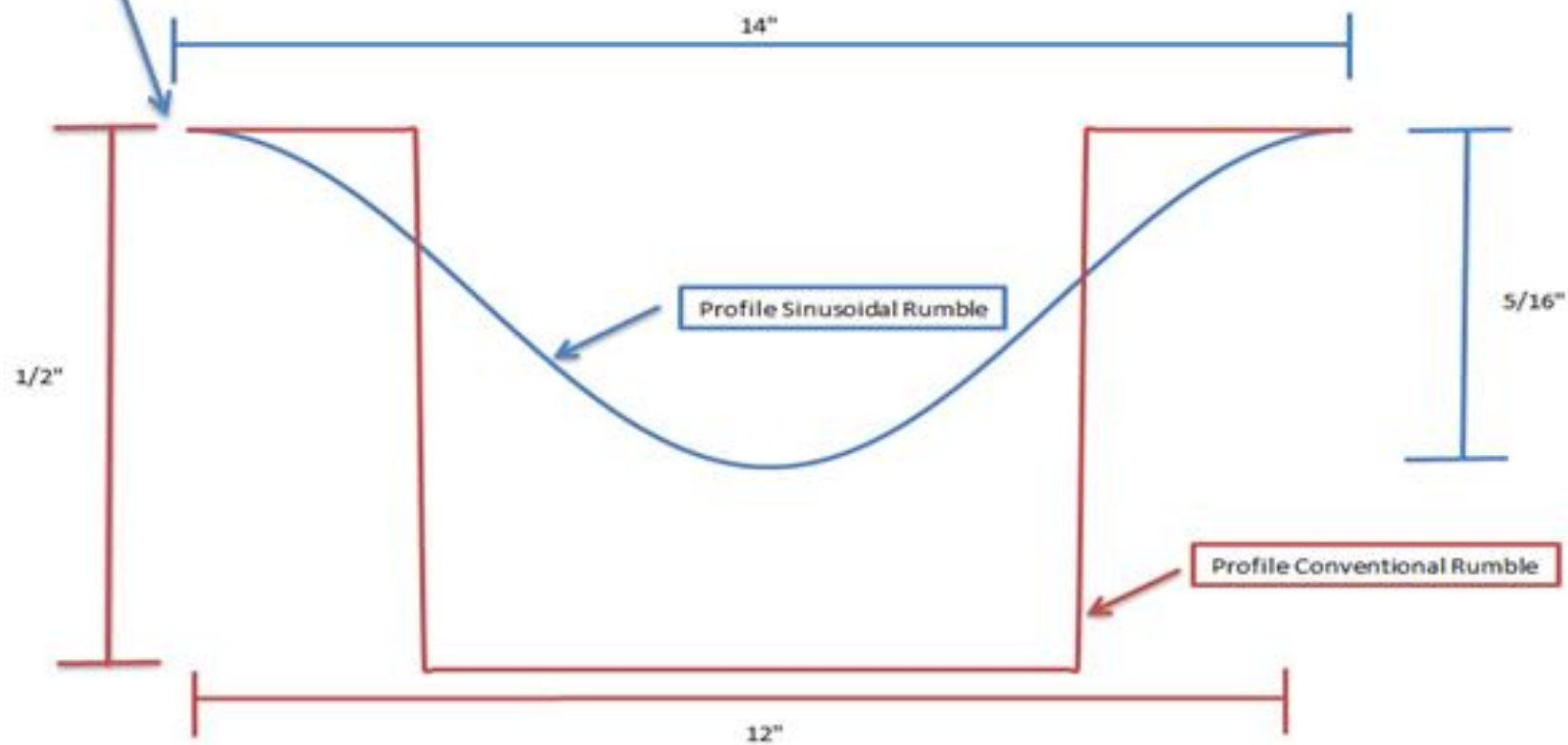
MnDOT Noise Evaluation

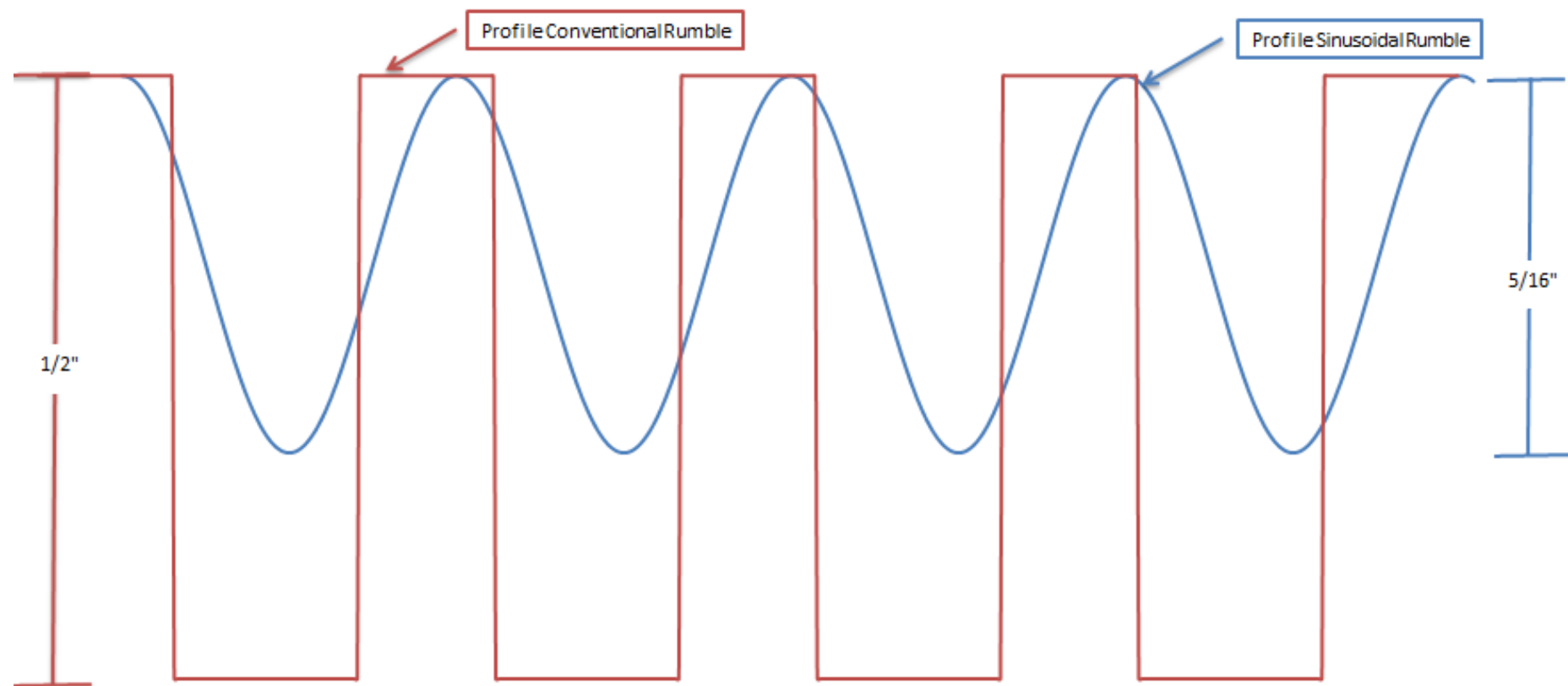
50' away 82 dB
100' away 75 dB
200' away 67 dB
300' away 62 dB



Designs







Mumble Strips and Strips

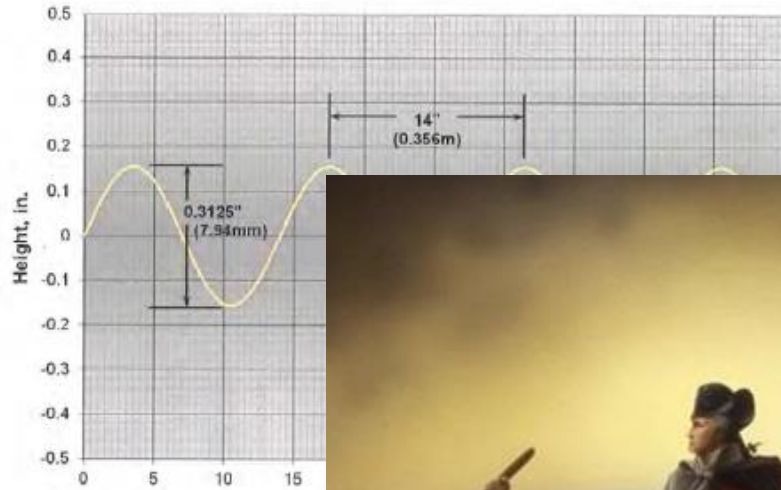
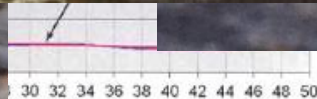
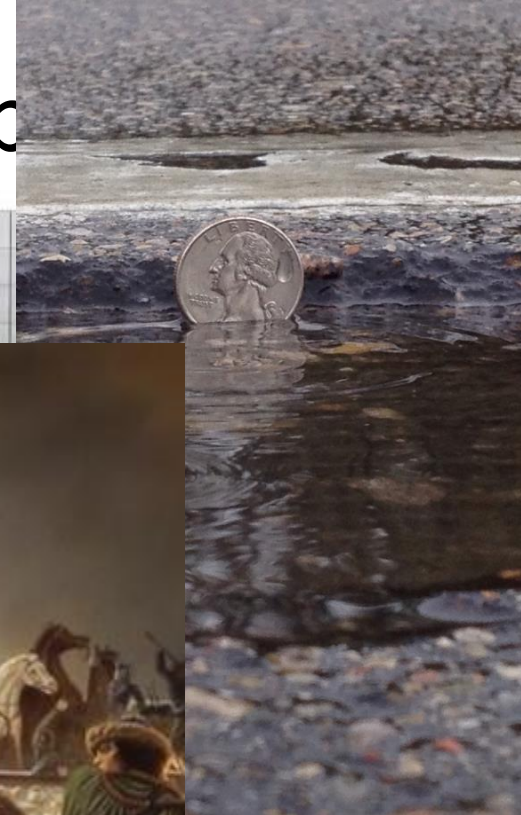
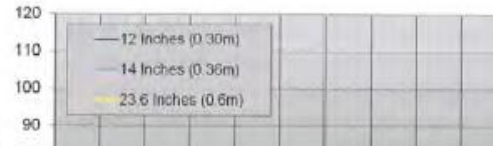


Figure 1: Recommended



Caltrans Study 2013

Mumble: 88.6 dB @ 10 ft

Rumbles: 93.4 dB @ 10 ft

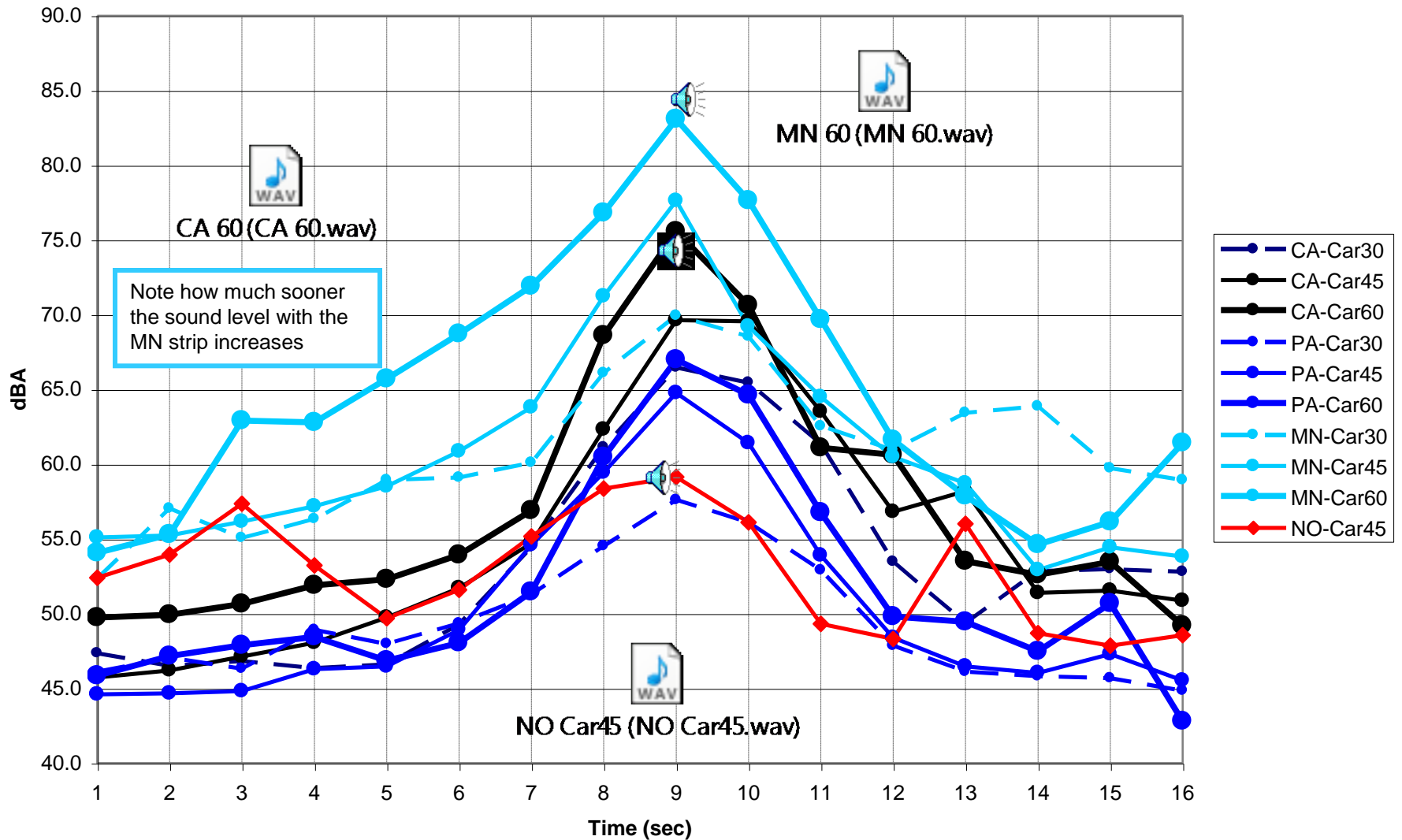




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Car LAeq Time Histories (50 ft)

Passby sound levels at Meter 1



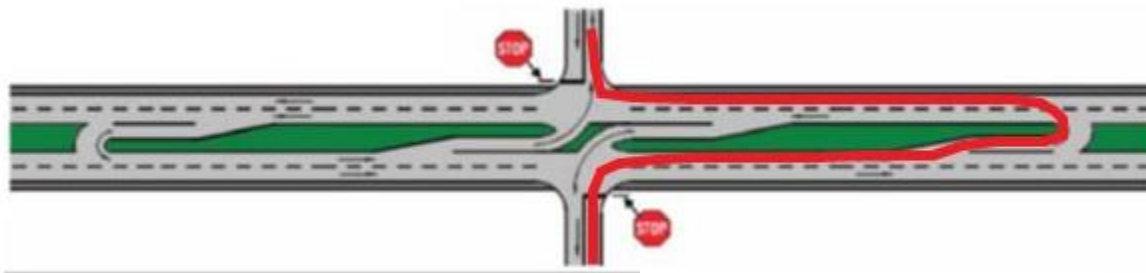
Reduced Conflict Intersections (RCI)

Restricted Crossing U-Turn Intersection (RCUT)



RCUTShort.mp4

- **What is it?**
 - Geometric improvement at an 4 lane intersection
 - Decrease the likelihood of right-angle crash
- **Where is it installed?**
- **What does it look like?**



Reduced Conflict Intersections (RCI)

Roundabout

- **What is it?**
 - Geometric improvement at an 2 or 4 lane intersection
 - Decrease the likelihood of right-angle crash
- **Where is it installed?**
- **What does it look like?**
- **How does it work?**

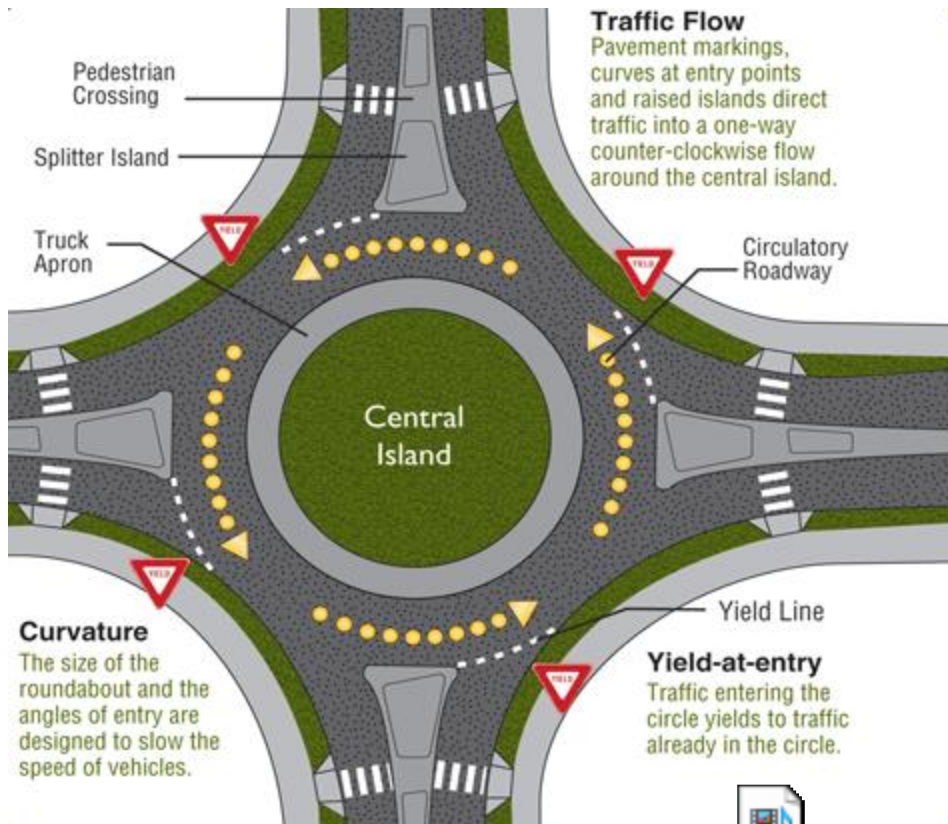


Reduced Conflict Intersections (RCI)



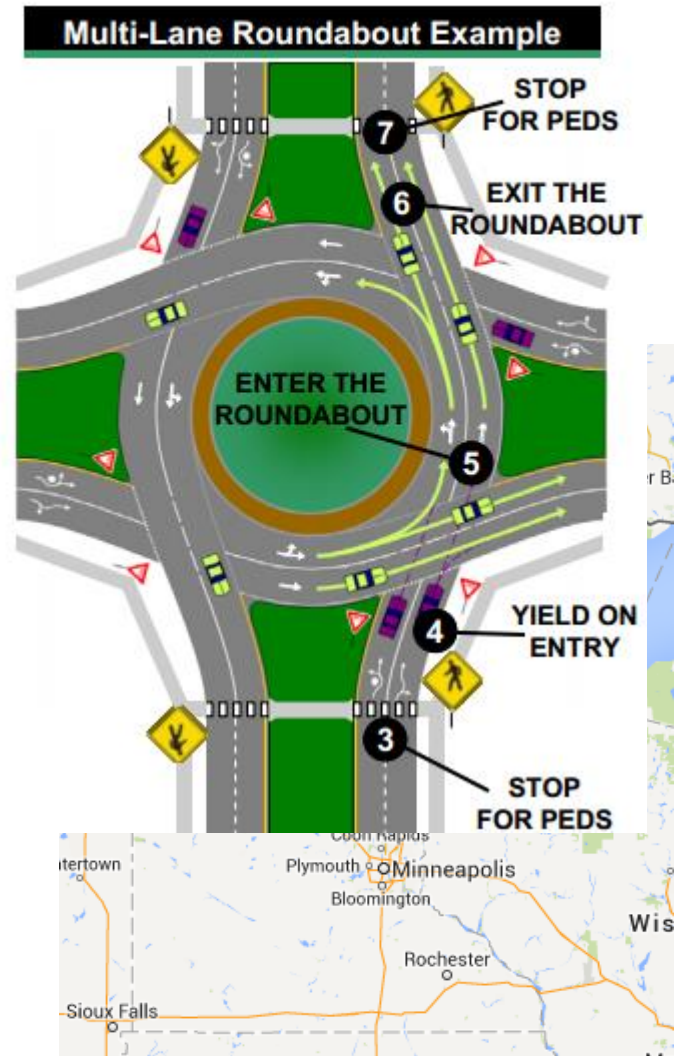
OVERVIEW.mp4

- **What is it?**



TRUCK.mp4

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Zipper Merge



Zipper Merge



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SNAG_Program-0007.mp4



High Tension Cable



HIT.mp4



HighTensionCableShort.mp4

- **What is it?**
 - Three or four steel cables strung on posts
 - Redirects vehicles along the median, preventing a cross-median crash
- **Where is it installed?**
- **What does it look like?**
- **How does it work?**



Questions?

